Draft Individual Review Form

Proposal number: 2001-K219-2 **Short Proposal Title:** Calaveras salmon and steelhead life history limiting factors assessment

1a) Are the objectives and hypotheses clearly stated?

Yes. The objectives and hypotheses are clearly stated, however, I don't think the overall objective of developing a technically sound and implementable, consensus-based plan for restoring salmon and steelhead in the Calaveras will be achieved without the participation of key stakeholder groups that are not part of the process as yet (i.e., CCWD, SEWD). The proposal does recognize that the hypotheses will change with stakeholder input and in response to reconnaissance data and information.

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?

The conceptual model does describe the causal relationships reflected in the applicant's hypotheses, and the applicant broadly incorporates the role of ecosystem processes and the importance of integrating physical and biological components into the model: land- and water-use, effects on physical processes and geomorphic conditions, changes is physical habitat conditions, ultimately responses of aquatic biota.

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?

The scope of work is a bit short on detail and does not adequately describe the approach to collecting new temperature and biological data. A map should have been developed identifying key locations and elements discussed in the proposal. Further, the applicant does not appear to recognize that existing biological, and temperature data sets will be incomplete if not non-existent. Also, assumptions are not explicit. The approach will likely allow researchers to further define hypotheses and develop pilot studies, but it is not clear whether the list of restoration actions will develop from the studies or from the modeling.

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project?

Yes. The proposal is explicit in that it is addressing information needs relative to the hydrologic, physical, and biological characteristics of the lower Calaveras River to support the development of pilot studies. The bulk of the proposal involves reconnaissance work and modeling work.

1c2) Is the project likely to generate information that can be used to inform future decision making?

Yes. The project should result in a pooling of information relative to the hydrologic, physical, and biological characteristics of the lower Calaveras River into a central location. This alone would be useful for agency managers and the public in genera. The modeling work – if accepted by the stakeholder group - could be then used by agency and stakeholder interests in assessing potential management and restoration options by placing potential actions in the context of larger ecosystem effects.

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?

The reconnaissance work is described in a relatively general fashion. The proposal indicates that a monitoring plan will be submitted for review by CALFED before data collection begins.

2b) Are data collection, data management, data analysis, and reporting plans well-described, scientifically sound and adequate to meet the proposed objectives?

The proposal is light on describing protocols, data collection and analysis. Also, there is no detail about location and quantity of sites where new biological and temperature data would be collected. No maps are provided to help further understanding of what is being proposed and where it would occur. The proposal does, however, describe data management, handling and storage, and it does list (though it does not describe) the products/reports to be generated.

3) Is the proposed work likely to be technically feasible?

Yes. The work is modeled on similar work done on the Tuolumne River by Stillwater Sciences over a 10 year period which created a foundation for the existing settlement agreement. Therefore, it is likely that Stillwater Sciences will be successful in accomplishing the work described in this proposal. Further, review of literature and survey data and aerial photographs, interviews, and field techniques mentioned are straightforward methods for preparing reconnaissance work.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project?

Yes. Stillwater Sciences has conducted extensive work of this type on the Tuolumne River, and similar restoration planning work on the Merced and San Joaquin Rivers. Their team of aquatic ecologists and fluvial geomorphologists are well-qualified for this type of work. Again, I am unclear as to the technical role of the Fishery Foundation, if any.

Miscellaneous comments

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
☐ Good	The proposal addresses key information needs that could facilitate restoration efforts on the Calaveras River, clearly states hypotheses, and describes a conceptual model, however, the scope of work lacks detail relative to the reconnaissance survey, fish community assessment, population modeling, and the monitoring and assessment components.